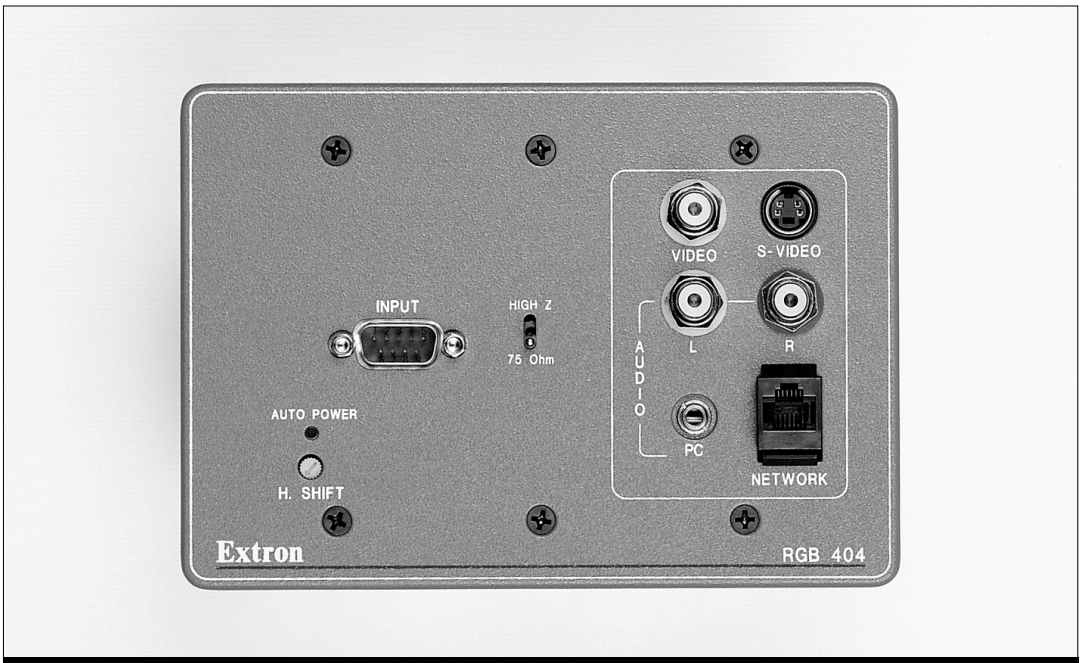
Extron Electronics

INTERFACING, SWITCHING AND DISTRIBUTION



RGB 404 - Universal Mountable Interface

300 MHz Bandwidth

Audio interfacing

Horizontal centering

Level control

Peaking

Digital Display Sync Processing (DDSP™)

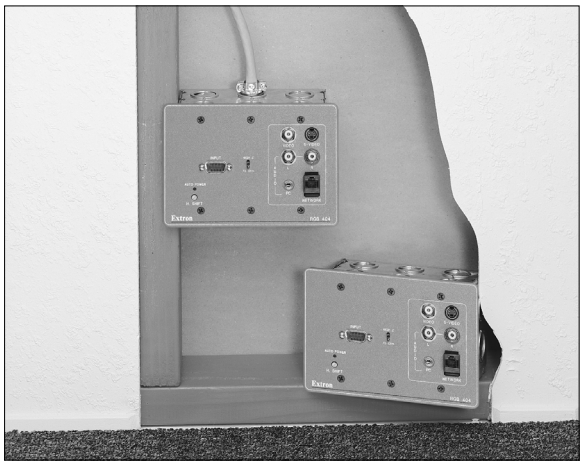
Composite and S-video pass-through

Four channels of audio

Network pass-through

SERVICE SUPPORT SOLUTIONS

Applications



The **RGB 404** is a three gang, universal analog interface that combines the flexibility of a full featured interface with high performance standards and specifications. It has a 300 MHz video bandwidth, and provides for the connection of most popular computers to large screen display products.

Extron's RGB 404 provides an additional 3.5 mm stereo audio input connector for desktop or laptop computers with built-in sound card output. More importantly, the RGB 404 provides audio interfacing and conversion of low-level unbalanced signals to line-level balanced audio signals on both the 3.5 mm and RCA audio inputs. The benefit of balanced audio is that the signal is cleaner and can travel longer distances.

Extron's RGB 404 is compatible with computer-video signals with frequencies between 15- 150 kHz including VGA, SuperVGA, XGA, XGA-2, Mac, Quadra, SUN, SGI and more. Additionally, the RGB 404 provides pass through connections for composite video, S-Video and a RJ-45 network connection.

The RGB 404's modular design fits flush into a wall, podium or table attaching to a standard, three gang mountable plate. Extron offers a selection of grey, black or white wall plates to match the surface in which the RGB 404 is mounted.

Enhancement features include jumper selectable level control and peaking adjustments which allow for variable distances up to 200 feet without any reduction in signal quality. When using the RGB 404 with an Extron MBC input cable, it is possible to view the connected computer's monitor and the large screen display simultaneously. The RGB 404 also features a 75 ohm termination switch that allows for video termination when a local computer monitor is not connected.

Features

- **Audio interfacing–** Both the 3.5 mm stereo jack input and left/right RCA connections provide line-level signals to audio distribution equipment.

- **Unbalanced to balanced audio conversion–** Unbalanced audio (from a computer or VCR for example) may be input either into the 3.5 mm stereo jack and/or left and right RCA connectors, and converted to line-level balanced audio. The benefit of balanced audio is the elimination of noise normally associated with unbalanced audio when distributed over longer cable runs.

- **Computer audio input–** A 3.5 mm stereo input is provided for computer audio sources.

- **Horizontal centering–** Allows the input computer source to be shifted horizontally on a presentation monitor or projector screen.

- **Pass through connection–** The RGB 404 provides pass through connections for composite video, S-Video and a RJ-45 network connection.

- **Level control–** Allows for adjustment of the brightness level of the displayed image. This control is similar to a brightness control on a data monitor.

- **Peaking–** Adjusts the sharpness of the displayed image and compensates for high frequency loss due to cable capacitance and bandwidth loss.

- **Sync output–** The RGB 404 has six BNC connectors for simultaneous RGB composite sync and H&V sync output.

- **Digital Display Sync Processing (DDSP™)–** Sync is output in its original state ensuring compatibility with LCD, DLP and Plasma digital displays.

- **75 ohm input termination switch–** Offers 75 ohm video termination for applications where a local computer monitor is not being used.

- **Mountable–** The RGB 404 is designed on a three gang plate and can be mounted into a wall, podium, table or anywhere. Perfect for permanent installations, the built-in capability of the RGB 404 promotes a more aesthetically oriented and businesslike enviornement.

SPECIFICATIONS

Video input

Number/type	1 analog RGBHV, RGBS, RGsB
Connectors	1 9-pin male D connector for MBC/LBC cable or buffer
Nominal level(s)	Analog — 0.3V to 1.45V p-p
Impedance	75 ohms or HI Z, switchable (set to 75 ohms if no local monitor is connected)
Horizontal frequency	15 kHz to 150 kHz (optimum 15 kHz to 62 kHz)
Vertical frequency	30 Hz to 170 Hz
Return loss	-30dB @ 5 MHz

Video throughput

Gain	Unity (0.7V), +15% with 3dB peaking (0.8V), +730% with 6dB peaking (0.9V)
Bandwidth	300 MHz (-3dB)

Video output

Number/type/format	1 analog RGBHV, RGBS, RGsB
Connectors	6 BNC female
Nominal level	Analog 0.7V p-p, 0.8V p-p, or 0.9V p-p (internal jumper-selectable) w/peaking
Impedance	75 ohms
Return loss	-30dB @ 5 MHz

Sync

Input type	Autodetect RGBHV, RGBS, RGsB (accepts RGsB but does not strip from video)
Output type	RGBHV at all times RGBS at all times RGsB only when input is RGsB
Input level	2.0V to 5.5V p-p with +0.2VDC offset max.
Output level	4.0V to 5.0V p-p
Input impedance	10 kohms
Output impedance	75 ohms
Max propagation delay	50 nS
Max rise/fall time	2.5 nS
Polarity	Positive or negative

Audio input

Number/type	2 stereo, unbalanced; 1.0Vrms (+4dBu), 20 Hz to 20 kHz
Connectors	Ch. 1..... 2 RCA female jacks Ch. 2..... 3.5mm stereo female jack (2 channel), unbalanced; tip (L), ring(R), sleeve (ground)
Impedance	0 kohms, DC coupled
Minimum level	100mV
Maximum level	+8.5dBu

Audio throughput — channels 1 and 2

Gain	Unbalanced 0dB, balanced +6dB
Response	±0.5dB 20 Hz to 20 kHz
THD + Noise	0.03% @1 kHz, 0.3% @ 20 kHz at rated maximum output drive
S/N	>90dB, output 14dBu, balanced
Stereo channel separation	>95dB @ 1 kHz to 20 kHz

SPECIFICATIONS (Cont.)

Audio output — channels 1 and 2

Number/type	2 buffered, stereo (2 channel), balanced/unbalanced
Connectors	3.5 mm captive screw terminal, 5 conductor
Impedance	50 ohms, unbalanced, 100 ohms balanced
Gain error	±0.1dB channel to channel
Drive (600 ohm)	+14dBu, balanced at stated %THD+N

General

Power	12VAC to 24 VAC, 50/60 Hz; or 12VDC to 24VDC, 0.25 A, 5 Watts, external (Order the power supply separately.)
Temperature/humidity	Storage -40° to +158°F (-40° to +70°C) / 10% to 90%, non condensing Operating +32° to +122°F (0° to +50°C) / 10% to 90%, non condensing
Rack mount	No, but wall or furniture mountable
Enclosure type	Metal
Enclosure dimensions	Plate ..... 4.5" H x 6.4" W (11.43 cm H x 16.2 cm W) Box ..... 3.75" H x 5.3" W x 2.5"D 9.5 cm H x 14.2 cm W x 6.35 cm D) 3-Gang Interface .... 2.8" H x 5.3" W x 2.5" D (7.1 cm H x 13.5 cm W x 6.4 cm D) (depth is given with HR cable attached)
Shipping weight	3 lbs (1.4 kg)
Vibration	NSTA 1A in carton (National Safe Transit Association)
Approvals	UL, CE, FCC Class A
MTBF	30,000 hours
Warranty	2 years parts and labor

Specifications are subject to change without notice.

ACCESSORIES

Power Supply - External auto-switchable

100-240 VAC, 50/60 Hz 12 VDC / 1 A 70-055-01

Monitor breakout cables

MBC VGA/XGA HR..... 26-162-01

MBC MAC/Quadra 26-018-02

MBC SUN Sparc HR..... 26-424-01

MBC SGI/13W3 HR..... 26-425-01

Laptop breakout cables

LBC VGA HR 3' 26-224-02

ACCESSORIES (Cont.)

LBC VGA HR 6' 26-224-01
LBC VGA HR 12' 26-224-03
LBC MAC HR 3' 26-363-03
LBC MAC HR 6' 26-363-01
LBC MAC HR 12' 26-363-04

LBC SUN HR 3' (61 kHz) 26-413-04
LBC SUN HR 6' (61 kHz) 26-413-01
LBC SUN HR 12' (61 kHz) 26-413-05

LBC SUN HR 3' (71 kHz) 26-413-06
LBC SUN HR 6' (71 kHz) 26-413-02
LBC SUN HR 12' (71 kHz) 26-413-07

LBC SUN HR 3' (81 kHz) 26-413-08
LBC SUN HR 6' (81 kHz) 26-413-03
LBC SUN HR 12' (81 kHz) 26-413-09

LBC MAC/VGA 35 HR 26-394-01

Laptop breakout cables with 3.5 mm stereo audio connectors

LBC VGA HR 3'A 26-441-01
LBC VGA HR 6'A 26-441-02
LBC VGA HR 12'A 26-441-03

LBC MAC HR 3'A 26-442-01
LBC MAC HR 6'A 26-442-02
LBC MAC HR 12'A 26-442-03

LBC SUN HR 3'A (61 kHz) 26-443-01
LBC SUN HR 6'A (61 kHz) 26-443-02
LBC SUN HR 12'A (61 kHz) 26-443-03

LBC SUN HR 3'A (71 kHz) 26-444-01
LBC SUN HR 6'A (71 kHz) 26-444-02
LBC SUN HR 12'A (71 kHz) 26-444-03

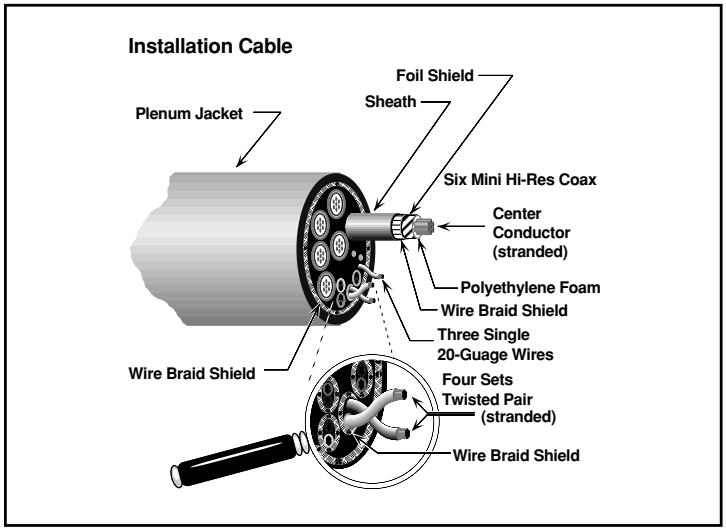
LBC SUN HR 3'A (81 kHz) 26-445-01
LBC SUN HR 6'A (81 kHz) 26-445-02
LBC SUN HR 12'A (81 kHz) 26-445-03

INSTALLATION CABLE

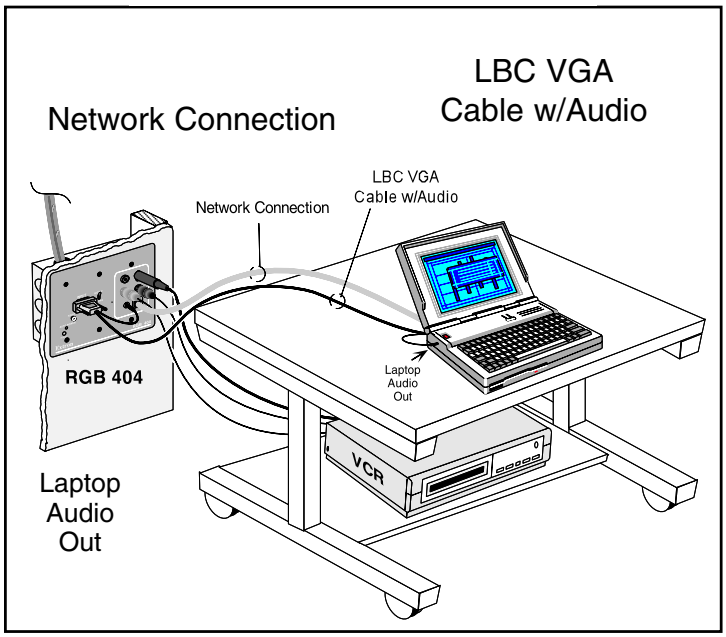
Extron's Install Plenum is a unique cable that incorporates computer-video, composite video, audio, control and power in one single jacketed plenum rated cable. Because the install cable includes (6) mini coax, (4) 22 gauge twisted pair and (3) 20 gauge wires, it is a perfect replacement for installations where two or three separate cables have been used before. With the install cable, not only can RGBS be distributed from a wall plate/podium to a rack but also audio, video and control — all in one cable!

Bulk Install Plenum, 500' HR……. 22-111-03

Bulk Install Plenum, 1000' HR…… 22-111-04



APPLICATION DIAGRAM



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